MITEL

IP-DECT System (Global)

Scalable, Robust, Messaging-capable Wireless Solution

The Mitel® IP-DECT System (Global) provides a highly scalable, messaging-capable solution with a portfolio of wireless phones to address a wide range of usage scenarios. It is ideally suited to verticals such as healthcare, manufacturing, security and retail that require wireless voice and messaging services. Integrating directly with the Mitel Communications Director (MCD), the system supports both European and North American DECT standards and can be deployed globally.

Workforce Mobility Improves Customer Service and Business Efficiency

IP-DECT wireless technology enables businesses to extend the reach of their voice network to improve customer service in a cost-effective manner. Delivering relevant information in real-time to the responsible individual drives significant productivity benefits.

Cost-effective, Highly Scalable Solution

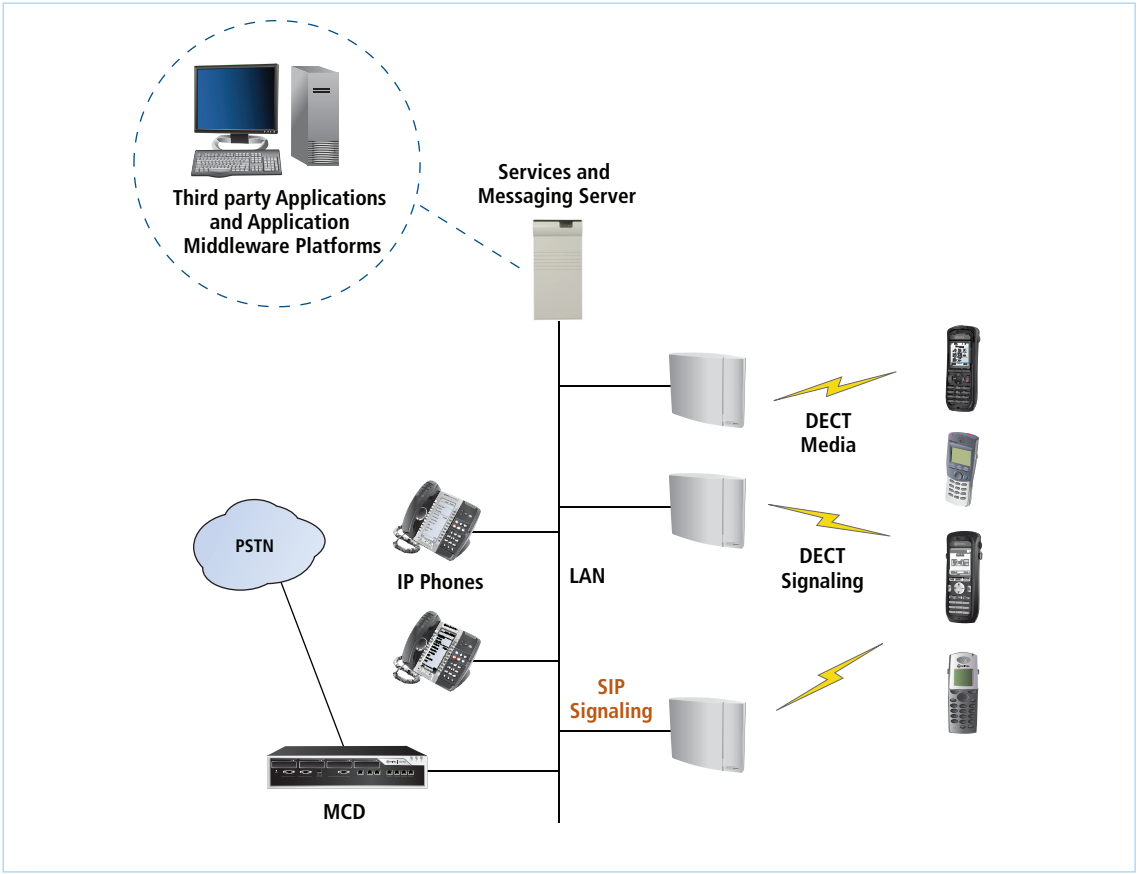
The option of widespread cellular phone usage can be very costly. The Mitel IP-DECT System (Global) enables the enterprise to control and manage their mobile communications costs on the premise. The IP-DECT System can deliver up to 2,000 handsets per installation via up to 1,000 LAN-connected radio base stations delivering comprehensive, cost-effective voice and messaging radio coverage. Requirements for even larger deployments are addressed via custom engineered solutions.

MITEL®
Simply Communicating®

Support for Safety and Security in Challenging Environments

A range of wireless handsets is available to suit a broad range of scenarios including office, healthcare (solvent and moisture resistance), industrial (dust and shock resistance) and security (alarming and location).

Typical System Topology



Mitel IP-DECT Base Station

The IP-DECT Base Stations are deployed over the LAN, integrating directly with the MCD to provide wireless access to mobile users within the desired coverage area.

Features include:

- Internal and external antenna variants (external antenna not available in North America)
- Connection to the MCD via LAN
- DECT radio interface
- Supports SIP over IP
- On-air synchronization
- SIM card – stores user profile and settings
- Web interface for configuration and software upgrade
- Power-over-Ethernet (PoE) or local power supply
- Easy installation
- External LED status indication
- Roaming and handover
- Interactive messaging, alarm and location (requires Mitel Wireless Services Messaging gateway)
- Supports eight simultaneous calls
- Optional accessories include a power supply (if no PoE is available), a pole mounting set and a protective external housing

DECT Frequencies

- IPBS Standard for use with DECT in the 1880 – 1900 MHz frequencies
- IPBS LA (Latin America) for use with DECT in the 1910 – 1930 MHz frequencies
- IPBS US (North America) for use with DECT in the 1920 – 1930 MHz frequencies

Physical

Dimensions (l x w x d)	165 x 200 x 56 mm (6.49 x 7.87 x 2.20 in) (including mounting bracket)
Weight	450 g (0.99 lb)
Material	ABS-molded plastic
Color	Beige
External connectors	2 x RJ45

Power

POE IEEE 802.3af or local power supply

Operating voltage	21 to 56 V DC
Power consumption	Typical 4 W, maximum 5 W

Network

Ethernet 10 / 100baseT

VoIP

Voice-over-IP	SIP with RFC 1889, RFC 2327, RFC 2396, RFC 2617, RFC 2782, RFC 2833, RFC 2976, RFC 3261, RFC 3262, RFC 3263, RFC 3264, RFC 3265, RFC 3311, RFC 3325, RFC 3326, RFC 3420, RFC 3515, RFC 3555, RFC 3680, RFC 3842, RFC 3891, and RFC 3892
Voice encoding	G.711 A-law / µ-law (64 kbps) G.723.1 (5.3 kbps), G.729A and AB (16 kbps) G.726 (32 kbps)

Radio

RF output power (e.r.p.), EU	Between 23 dBm and 28 dBm (with internal antenna), Between 20 dBm and 25 dBm (with external antenna)
RF output power (e.r.p.), US	Between 17 dBm and 21.6 dBm (with internal antenna)

Environmental

Operating temperature	-10°C to +55°C (14°F to 131°F)
Storage temperature	-40°C to +70°C (-40°F to 158°F)
Relative operating humidity	15 to 90%, non condensing
Relative storage humidity	5 to 95%, non condensing
Immunity to electromagnetic fields	5V/m (EN61000-4-3)
Immunity to ESD	4 kV contact discharge and 8 kV air discharge (EN61000-4-2)

Mitel Wireless Services Messaging Gateway

The Mitel Wireless Services Messaging gateway enables the wireless handsets to function as two-way messaging and alarming devices, allowing integration to other enterprise systems or specialized applications to provide mobile workers access to real-time critical information.

The WSM Gateway is a hardware plus embedded software solution that comes in four variants – Basic, Standard, Premium and Enterprise, as described in the following table.

WSM – Basic

- MCD (3300 ICP) Directory interface (Searchable; 2,000 entry limit)
- Handset to Handset Text Messaging
- Web Messaging Tool (Browser based; Send to single handsets)

WSM – Standard (Basic +)

- External Directory access (via LDAP)
- Messaging Acknowledgement
- Messaging to Groups
- Alarms support
- PTT (Group Call) support
- Call Set-up (requires optional components)
- Enhanced Web Messaging Tool (bi-directional; priority; non-text alerts; groups)
- Single External Messaging Interface over RS-232 (ESPA 4.4.4, or TAP 1.8, or ALP)
- Single External Messaging Interface over IP (URL)
- Central Device Management (up to 100 users)

WSM – Premium (Standard +)

- Third-party Application Integration (over OAP)
- Advanced Interactive Messaging (over OAP)
- Location (Alarm triggered) support (over OAP)
- Support for Multiple External Messaging protocols over IP or RS-232
- SNPP level 1 (Simple Network Paging Protocol)
- OAP (Open Access Protocol) for integration to third party applications
- Central Device Management (up to 500 users)

Enterprise (Basic +)

- Central Device Management (up to 1,000 users)
- Compatible with WSM Standard and WSM Premium

Simplified Device Management

MCD Management Integration

The new Mitel 5603 and 5604 Wireless Phones are configured as specific device types on the MCD, making the IP-DECT configuration more concise and making adds, moves and changes simpler to manage from the Mitel Enterprise® Manager.

To consolidate management of the IP-DECT solution, the IP-DECT Management Tool now launches from the Enterprise Manager, and SNMP alarms are sent from the IP-DECT system to Enterprise Manager.

Simplified Device Management

IP-DECT 4.0 introduces support for simplified device management, compatible with the 5603 and 5604 Wireless Phones. The following features are available (depending on handset type):

- Overview of all devices
- Configuration of handsets
- Configuration of network connected chargers
- Templates for common settings for several or all devices
- Software upgrade (can be scheduled to specific date and time)
- Backup of all handsets' individual settings, including contact list
- Download to handset of company phonebook
- Download to handset of contact list
- Download to handset of language file (for additional handset languages)
- Multiple devices can be handled simultaneously
- License handling for devices (upgrade device, move license)

WSM Gateway Based Centralized Device Management

The WSM (WSM – Standard v2, WSM – Premium v2, WSM – Enterprise) enables centralized management of devices "over-the-air" or in conjunction with either the 5603 / 5604 Wireless Phone Handset Programmer or 5603 / 5604 Wireless Phone Rack Charger over the LAN. This capability includes both programming and software upgrading.

PC Based Device Management

The WinPDM software in conjunction with either the 5603 / 5604 Wireless Phone Handset Programmer or 5603 / 5604 Wireless Phone Rack Charger enables management of devices on a one-by-one basis. This includes both programming and software upgrading.

Device Replacement

In conjunction with either the 5603 / 5604 Wireless Phone Handset Programmer or 5603 / 5604 Wireless Phone Rack Charger, it is now possible to simply and quickly transfer the full configuration of a disabled 5603 or 5604 Wireless Phone handset to a replacement handset simply and quickly.

Specifications

Hardware Requirements
ELISE2 / 64 MB RAM / 1 GB FLASH or higher

PC Requirements	
Installation and administration	Microsoft® Internet Explorer® 6.0 or later Sun Java™ Runtime Environment (JRE) 6 or later
Screen resolution	1024 x 768 pixels

Language	
Installation GUI	English only
Operational GUI	English as standard, translations can be added

Central Phonebook	
Number of entries (.csv import)	500 editable or 2,000 uneditable
Supported protocols	LDAP and MCD .csv file import
Supported LDAP Servers	Microsoft® Active Directory® in Microsoft Windows® 2000 Server Active Directory in Windows Server 2003

Group Capacity	
Number of groups	Between 30 with up to 15 users and 1 with up to 50 users

Time Synchronization	
Time server ability	Yes
Automatic daylight saving adjustment	Yes
Date and time format	Adjustable to commonly used formats
Time sources	NTP server (NTPv4 compatible with NTPv2 and NTPv3)
Manual setting	Yes

Messaging	
IP-DECT	Max capacity: 4000 messages / hour (10,000 messages / hour without centralized management)
Wi-Fi	Max capacity: 4000 messages / hour (10,000 messages / hour without centralized management) Maximum total capacity of messaging in WSM is 4000 messages / hour with centralized management and 10,000 messages / hour without centralized management.
Supported special characters	Swedish, Norwegian, Danish, Finnish and German language

Message Priority and Beep Codes	
Priority	9 levels (requires 5604 Wireless Phone Services license)
Beep Codes	7
Colored Messaging	Yes; can be mapped to Beep codes (requires 5604 Wireless Phone Services license)

Location	
Base Station	Yes (requires 5604 Wireless Phone Services license)
DECT Beacons	Yes (requires 5604 Wireless Phone Location license)

Supported Wireless Systems	
DECT	IP-DECT
Wi-Fi	Wi-Fi

One DECT system and Wi-Fi can run simultaneously.

Alarm Handler (WSM – Standard, WSM – Premium)	
Triggers	Input activity from ELISE2 Data from portables Alarm from portables
Max. No. of triggers	250
Actions	Messages with information about user identity and triggered input Activation of outputs on ELISE2
Max. No. of actions	250

Advanced Web Messaging Tool (Netpage)	
Max. No. of predefined messages	30 common messages, max. 20 kB in total 30 local messages, max. 4 kB in total

Messaging Protocols and Messaging (WSM – Standard, WSM – Premium) Serial Interface	
Supported protocols	ESPA 4.4.4 protocol Ascom Line protocol URL Messaging Protocol TAP 1.8

OAP, Open Access Protocol (WSM – Premium)	
OAP	Basic messaging, interactive messaging, alarm and location

Hardware	
	ELISE2 Hardware platform for Unite software applications; IMS, ESS, XGate, UPAC etc. • Embedded Linux® server • No movable parts • Can be rack-mounted in 19 inches chassis • Easy configuration and administration via a web browser

Physical	
Dimensions (l x w x d)	275 x 130 x 60 mm (10.8 x 5.1 x 2.36 in) including clip
Weight	550 g (1.21 lbs)
Material	Case: PC / ABS
Color	Light grey

Functional	
Supply voltage	12 – 24 V DC ±10%
Current consumption	Max. 0.4 A at 12 V, max. 0.2 A at 24 V

Environmental	
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to 70°C (-4°F to 158° F)
Relative humidity	30-85% (non-condensing)
Enclosure protection	IP 30, IEC EN60529

Memory	
RAM	64 MB
Compact flash	256 MB

(Input / Output)	
Three serial ports	RS232 (modular jacks, RJ45)
One serial port	RS485 (screw terminals or modular jacks, RJ45) Mostly used for system 900 A-bus
LAN	10baseT or 100baseT Ethernet (modular jack, RJ45)
Error relay output	Configurable – make / break operation Mostly used for fault actions and error indications
AUX outputs	Two galvanically isolated open collector outputs
AUX inputs	Two digital inputs

5603 / 5604 Wireless Phone Chargers and Programmer

5603 / 5604 Wireless Phone Rack Charger

- Wall Mountable
- Charges six 5603 / 5604 Wireless Phones simultaneously
- Supports programming of the 5603 / 5604 Wireless Phone on a one-by-one basis, using the Portable Device Manager (PDM) software via USB connection
- Charging status indicated on handset display
- Ethernet connection for centralized handset management via the Mitel Wireless Services Messaging Gateway
- Supports easy replacement of telephones

5604 Wireless Phone Battery Pack Charger

- Changes six batteries simultaneously for 5604 Wireless Phone
- Wall Mountable

5603 / 5604 Wireless Phone Desktop Charger

- For charging a single 5603 / 5604 Wireless Phone
- Charging status indicated on handset display
- Supports optional "In Charger" mode with absence indication
- Trickle and fast charge support

5603 / 5604 Wireless Phone Programmer

- Charging functionality of the 5603 / 5604 Wireless Phone Desktop Charger
- Supports remote management
- Enables programming and upgrading of the phones on a one-by-one basis, using the PDM software (included) via USB
- Ethernet connection for centralized handset management via the WSM Gateway
- Supports easy replacement of telephones
- Supports 5604 Wireless Phone optional license activation

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